

Eureka Welding Alloys

2000 E. Avis Drive

Madison Heights, MI 48071

Phone: 248-588-0001 Fax: 248-585-7711 Toll Free: 800-962-8560

E-mail: info@eurekaweldingalloys.com Website: www.eurekaweldingalloys.com

TECHNICAL DATA FOR EUREKA 450 ELECTRODE

Dated: March 31, 1995

Revised: July 8, 2013

INTRODUCTION

Eureka 450 Electrode is a smooth running basic coated stick electrode that has a martensitic stainless steel chemistry. The electrodes are designed for superior weldability having no spatter, a stable arc, good wet out, and easy slag removal.

METALLURGICAL CHARACTERISTICS

Eureka 450 Electrode is a martensitic stainless steel Chromium, Molybdenum and Nickel hot working alloy. It has excellent crack resistance, moderate wear resistance and displays reasonable impact resistance. The as welded hardness is 44-48 HRC.

RECOMMENDED APPLICATIONS

Eureka 450 Electrodes is used for the welding of forging die impressions in both hammer and press forging dies requiring strength and toughness. In many cases it is used in the lower half of impressions which are then overlaid with a higher wear resistant alloy. Typical applications are crankshaft dies, connecting rods and yokes.

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WELDING PARAMETERS

SIZE	AMPERAGE RANGE
3/32" 2.4mm	70 – 120
1/8" 3.2mm	100 – 140
5/32" 4.0mm	140 – 170
3/16" 4.8mm	170 – 225
1/4" 6.35mm	225 – 300
5/16" 7.94mm	300 – 375
3/8" 9.5mm	350 – 425

TYPICAL CHEMISTRY

C	Mn	Si	Cr	Mo	Ni
.15	.60	.40	10.5	2.0	1.8

PHYSICAL AND OR MECHANICAL PROPERTIES

TENSILE STRENGTH 165,500 psi

YIELD STRENGTH 129,500 psi

ELONGATION 9.6%

REDUCTION IN AREA 30.5%

CHARPY "V" NOTCH 20.7 Ft/lbs.

AS WELDED HARDNESS 44-48 HRC

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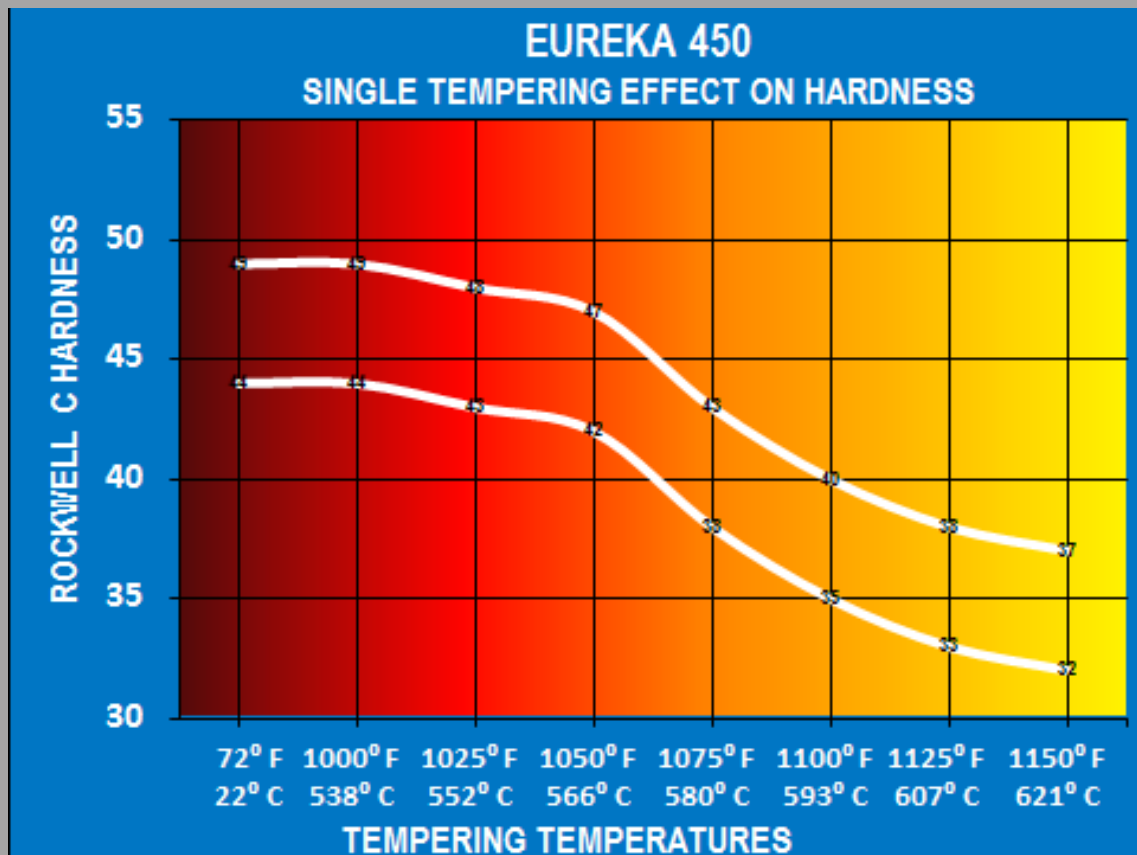
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TEMPERING DATA

The tempering data is to be used as a guide. Your results may differ due to the many variables in the utilization of this product.



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